

Marshall

AMPLIFICATION



AdvancedValvestateTechnology

AVT150X, AVT150HX & AVT275X
Owners Manual



From Jim Marshall

I would like to thank you personally for selecting one of our Valvestate AVT amplifiers.

Ever since its initial launch in the early 1990's, the original Marshall Valvestate technology received worldwide acclaim and set a new standard in affordable quality amplification. However, my dedicated team of designers are constantly looking for methods to make our amplifiers sound even better. As they are all guitar players themselves this process has become a passion within the design department.

As the name Advanced Valvestate Technology (AVT) suggests, your new amplifier benefits from their research and utilises their latest circuit innovations, all of which are totally unique to Marshall. By emulating the feel and response of an all-valve amplifier even more closely, the AVT range perform brilliantly and represent yet another major step forward in guitar sound technology.

I suggest that you read this manual thoroughly before operating your new amplifier and keep it in a safe place for future reference. This will help you to derive maximum enjoyment from our Advanced Valvestate Technology.

Wishing you every success.

Yours Sincerely,

A handwritten signature in black ink that reads "Jim Marshall". The signature is fluid and cursive, with a prominent diagonal stroke.

Introduction

What is AVT?

Advanced Valvestate Technology, or AVT for short, is a major step forward in hybrid amplifier design which is exclusive to our Advanced Valvestate Series of amplifiers. It has evolved from the original, critically acclaimed Marshall Valvestate technology, but is improved so that it emulates even more closely the feel and response of the classic Marshall all-valve power stage...without using valves.

It is not only the power stage that has been significantly improved in the series either. Much careful attention to detail and many hours of development have also gone into the preamp section too. As a result, each AVT channel offers the widest possible range of control and shape to your sound, with an ECC83 (a.k.a.12AX7) preamp valve adding to the all-important tone and feel of these latest Marshall creations.

Valve Drive Preamp

As just stated, each amp in the range boasts a preamp stage equipped with an ECC83 Dual Triode valve. Drawing on our vast experience in this field, we have gone to great lengths to ensure that this precious device delivers maximum sonic benefit at all settings and volume levels. As a result, the clean sounds ring with the 'bell-like' harmonics that only a valve preamp can deliver and the break-up is never harsh or unnatural sounding. Whenever an AVT Overdrive channel is selected the ECC83's dual triode is saturated to its limit, providing the dynamics and feel worthy of a place in the Marshall hall of fame.

Power Amp Delivery

The same sort of toneful care and attention was also focused on the all-important power stages of the AVT series too. Our goal was to ensure that each one would create the warm, musical feel and 3-dimensional sounds that have made our all-valve power amps world renowned. In addition, these AVT products were designed to deliver the goods in the often hostile and unpredictable environment of the live performance stage - which is why all the AVT power amps, from the AVT50X upwards, are fan cooled for optimum reliability.

'Extended Bass Response' Loudspeakers

Knowing how important the relationship between the amplifier and speaker is, this is another area where we spent a great deal of time and effort when developing the AVT Series. By working extremely closely with our long-term colleagues at Celestion Loudspeakers, we have successfully developed a range of speakers which, through radical design, re-define the state-of-the-art in rock guitar reproduction. In a nutshell, they allow the compact closed back cabinets used in the AVT range, to maintain the bottom end delivery normally only associated with a full 4 x12 cabinet set-up.

DFX Onboard

At Marshall our aim is to create products that offer our fellow guitarists true inspiration in the practice and performance of their art. When integrating DFX (Digital Effects) into the tonal topology of AVT, the greatest care was taken to ensure that the highest level of signal integrity was maintained. Through careful shaping and mixing of the 'wet' (processed) and 'dry' (unprocessed) signals, we have ensured that the onboard effects enhance your tone while adding none of the nasty, artificial 'grain' often associated with DFX. Different effect types can be assigned to the Clean and Overdrive channels and can, of course, be turned on and off via the sturdy 6-way LED foot controller supplied with your amp.

AVT150X & AVT150HX Front Panel Features

I. The Preamp Section

Your AVT amp boasts no fewer than four channels: Acoustic Simulator, Clean, Overdrive 1 and Overdrive 2. The preamp section is where the gain, tone and relative volume of these four channels is determined.

1. Input Jack Socket

This is where you plug your guitar into the amp. You must always use a screened (shielded) guitar cable and never use an unscreened (unshielded) speaker cable. Also, this cable should be one of good quality. If you are in any doubt regarding this, your Marshall dealer will be more than happy to help and advise you.

2. Acoustic Sim. Channel Selector Switch

Allows selection of the Acoustic Simulator channel via the front panel.

3. Top Control

This control takes the channel's sound from a mellow, acoustic tone (similar to a microphone placed towards the neck of the instrument) all the way to a bright, piezo-like acoustic sound and all points in-between.

Note: The amp's Master Presence control (21) affords you further adjustment of the high end.

4. Body Switch

This changes the 'body resonance' simulation of the channel from that of a regular sized, steel-string acoustic (switch 'out') to that of a large bodied, 'Jumbo' acoustic (switch 'in').

5. Volume Control

This dictates how loud the Acoustic Simulator Channel will be.

6. Clean Channel Selector Switch

This allows selection of the Clean channel via the front panel.

7. Clean Channel Gain Control

This rotary control regulates the drive into the two cascaded valve stages of the preamp. Lower settings will give you a wide range of well defined, warm clean tones.

At higher Gain settings you will pass through natural, valve-induced compression and into an increased level of desirable 'break-up' (a.k.a. 'crunch') which is perfect for subtly overdriven blues/rock.

8. Bright Switch

Most of the Gain controls in classic Marshall amps have been fitted with what is known as a 'treble bleed capacitor'. This device allows extra high frequencies to be 'bled' through to the drive section when the Gain control is at low settings. Engaging the Bright Switch will 'bleed' extra high frequencies into the drive stage of the Clean channel, giving you a bright, clean tone perfect for many styles, including funk and country. The higher the Gain control is set, the less effect the 'treble bleed capacitor' has. As a result, at maximum Gain settings, the bright switch will have no audible effect at all.

9. Clean Volume Control

As its name suggests, this control determines the volume of the clean channel. The actual setting you choose will be dependent on how loud you want the channel to be, and also on the type of sound you have selected on the preamp. Due to the remarkable realism of our Advanced Valvestate Technology, once the Volume control is turned-up past a certain point the preamp will start to push the power amp section into creating its own, desirable distortion - just like an all-valve Marshall amp. When this occurs, the AVT's power amp will start to add musical harmonics, compression and 'break-up' into your sound.

Note: As each channel has its own volume control, you can easily balance the levels of all four channels as you so desire. Once set to your satisfaction, these controls can be left alone and you can use the amp's Master Volume knob (20) to set your overall volume level.

10. Clean Tone Controls

The Clean channel is equipped with rotary Bass, Middle, and Treble controls. These three passive EQ controls are designed to achieve maximum tonal variation from your AVT amplifier and, just like the tone controls on our famous all-valve amps, are highly inter-dependent on each other. As a result, the way each one functions depends on the exact position of the other two controls. This is especially true of the Bass and Treble controls in relation to the Middle control. As you will discover, the lower the Middle control is set, the more 'reactive' the others become.

As tone is very much down to personal taste, experimentation and experience is probably the best way of learning how these three controls

will affect your sound. To offer you some guidance, suggested settings are shown later on in this manual.

Points to remember are:

When selecting a sound on any amp:

a) The tone and output level coming out of each guitar is as widely variable as guitars themselves. Remember, guitars and also pickups are not designed (nor intended) to be equal. Therefore, amp settings will vary to suit both your guitar and your playing style, and by necessity, are at your discretion.

b) The tone of your sound is also dependent on the way you set-up the Volume, Gain and Tone controls of your amp. Taking the time to adjust them to taste will further enhance the sonic textures of your AVT. As is true of all the best things in life, it is worth investing some time playing around until you find the desired sweet spot!

Note: The amp's Master Presence control (21) affords you further adjustment of the high end.

11. OD1 Channel Select Switch

Pressing this front panel switch selects the Overdrive 1 (OD1) channel of your AVT.

12. OD1 Gain Control

This rotary control can be best described as the 'sonic brain' of the OD1 channel. Lower Gain settings will produce well-defined, natural sounding overdrives which have a nice 'cut,' making them perfect for funky, blues rock. Higher gain settings will see the sound start to get more 'rounded' as the AVT's pre-amp valve is pushed into saturation.

13. OD1 Scoop Switch

Fine tuned to create the most awesome mid 'scoop' imaginable, OD1's Scoop circuitry is more than just a pre-set middle control. Instead it actually reconfigures the whole post-EQ voicing of the channel - from low to high. Because of this, even though the resulting 'scooped' sound that occurs when the switch is activated (pushed 'in') is totally extreme, the channel's overall tone still remains tight and focused.

14. OD1 Volume Control

As its name suggests, this control determines the volume of the OD1 channel. The actual setting you choose will be dependent on how loud you want the channel to be, and also on the type of sound you have selected on the pre-

amp (i.e. high Gain settings will generate much more preamp output level than lower, cleaner sounding Gain settings).

Due to the remarkable realism of our Advanced Valvestate Technology, once the Volume control is turned-up past a certain point, the preamp will start to push the power amp section into creating its own, desirable distortion - just like an all-valve Marshall amp. When this occurs, the AVT's power amp will start to add musical harmonics, compression and desirable 'break-up' to your sound.

As previously stated, each channel has its own volume control so you can easily balance the levels of all four channels. Once set to your satisfaction, these controls can be left alone and you can use the amp's Master Volume knob (20) to set your overall volume level to best suit each playing situation and venue.

15. OD2 Channel Select Switch

This selects the Overdrive (OD2) channel of your amp.

16. OD2 Gain Control

Cranking the OD2 Gain control will unleash the most extreme gain levels ever found on a Marshall Valvestate amplifier. The higher settings of the OD2 gain control can be likened to driving the front-end of an already raging Marshall valve amp with a high gain, overdrive stomp box. If you've already experienced the tonal pleasure of 'front ending' a Marshall valve amplifier in this way, you will appreciate the energy and dynamics of this type of set-up! Turning the OD2 Gain control clockwise will see more of the already smouldering signal being sweetly compressed and 'rounded' by the unique characteristic of the AVT's Valve Drive stage as it is driven over the top into total saturation. This channel can also be as nasty and 'in-yer-face' as you would like. Engaging the OD2 'Scoop' button (17) will take this channel onto a new level of cranium crushing crunch, perfect for modern (a.k.a. 'nu') metal.

17. OD2 Scoop Switch

As is true of the OD1 Scoop, this circuit acts like an advanced, pre-set contour control that not only 'scoops-out' the mids but also shapes the highs and lows for a tight, focused sound. Engaging OD2's Scoop Switch loads you up with a 'bottom heavy' sound perfect for the de-tuned, high-gain aggression favoured by many modern acts.

18. OD2 Volume Control

This control regulates the drive of the OD2 channel into the power stage of the amplifier, hence controlling its output volume. You will find that the louder you go, the looser the bottom end of your sound will become. Having said this, the closed-back cabinet design of your AVT is such that it will deliver tight, well-defined low end at much higher volumes than any other 'hybrid' amplifier known to man.

19. Overdrive Tone Controls

Your AVT is equipped with rotary Bass, Middle, and Treble EQ controls which are shared between the two Overdrive Channels, OD1 and OD2. This EQ section boasts a tone circuit identical to the one used in legendary Marshall valve amplifiers such as the 100 Watt 'Plexi' and the JCM800 2203, making it a foundation stone for that instantly recognisable and unsurpassable 'Marshall Sound'. As was the case with the Clean channel's EQ network, these controls are interactive and, as a result, allow endless tonal possibilities.

Note: Remember that in addition to these three controls, further tonal adjustment is also afforded by the Scoop button (17) and also the Master Presence control which is explained later (21).

II. The Master Section

These controls adjust the power amp section of your AVT and determine the overall Volume and Presence of the amplifier.

20. Master Volume

Once you have set the relative volumes of your AVT's channels, this control governs the overall volume of the amplifier.

21. Master Presence

A feature normally only found on expensive valve amplifiers, the Presence control affords you increased high frequency control by altering the power amplifier's feedback. Increasing the Presence control will emphasise high-end 'fizz' in overdriven tones and top-end 'sparkle' in clean sounds.

III. FX Section

A. Parallel FX Loop

Your AVT boasts a rear-panel mounted Parallel FX loop for use with external effects devices. This FX loop is Mono in the case of the AVT150X and AVT150HX and Stereo (Mono Send, L & R Returns) in the case of the AVT275X (see 'Rear Panel Features' Section for more details).

22. FX Loop Mix Controls (Clean & Overdrive)

When an effects unit is hooked-up to the aforementioned FX loop, the top control adjusts the FX Mix for the two OD channels and turning it clockwise increases the amount of effect you hear - from 'dry' (0) to 'wet' (10). The bottom FX Mix control does the exact same thing for the Acoustic Simulator and Clean channels.

Please note that the FX mix on your external processor should be set to maximum (i.e. 'wet').

B. Internal Digital FX

As mentioned in the introduction of this manual, the AVT150X, AVT150HX and AVT275X each feature two separate DFX (Digital Effects) sections - the upper DFX section is for the two Overdrive channels, OD1 and OD2, and the lower section is for the Clean & Acoustic Simulator Channels. Each DFX section boasts 16 on-board effects and three controls - DFX Mix, Adjust and Program.

We chose the particular effects algorithms to give you a comprehensive palette of natural sounding options. When developing the DFX section, our aim was to enhance the overall sound of the amplifier and, most importantly, allow the effects to work with you instead of masking your all-important tone underneath layers of artificial sounding digital signal processing.

The first 10 programs offered are all Reverbs. Reverberation effects recreate the natural echo reflections found in physical environments such as halls and rooms or, in the case of plate reverbs, a mechanically vibrating metal plate. These echoes are extremely complex in nature and are, therefore, notoriously difficult to recreate. In developing these 10 programs we've gone to great lengths to ensure that none of the harsh digital 'graininess' normally associated with some digital reverbs is present.

Below is a brief description of each of the 16 DFX programs available:

1	Hall A: this is a large, bright sounding, concert hall. "Wembley Arena, are you ready to rock!?"
2	Hall B: warmer sounding than Hall A, this program is perfect for adding depth and character to clean and acoustic tones.
3	Hall C: a medium sized hall with 12ms of delay before the reverb starts.
4	Room 1: a hardwood studio with lots of early reflections. Perfect for acoustic type sounds.
5	Room 2: perfect for adding some subtle ambience.
6	Room 3: warmer sounding than Room 1, perfect for clean or acoustic work.
7	Plate 1: a bright, transparent plate sound ideal for lead work.
8	Plate 2: warmer sounding than Plate 1, this program is great for adding sustain, especially on clean and acoustic tunes.
9	Plate 3: an accurate emulation of a vintage tube plate reverb. As this program has very little low end it is great for adding 'cut'.
10	Gated Reverb: by 'chopping-off' the end of the reverb's decay 'tail' via a Noise Gate, this program is great for spicing-up chord stabs without cluttering up your sound.
11	Chorus: splitting the signal and then mixing the dry signal with a detuned version creates this popular effect. To add to the subtle 'widening' this creates, the detuned signal is modulated by an LFO (Low Frequency Oscillator) which causes the detuning to vary. The result is a subtle, lush sound that is equally effective on both clean and dirty tones.
12	Flange: similar to chorus but much more 'jet' like in nature.
13	Delay: this creates an echo repeat of the original signal. The delay time is adjustable in 10 millisecond (ms) increments and can be set to be as long as 1270ms which is well over 1 second.
14	Chorus/Room: as the name suggests, this combines Chorus and a large room Reverb.
15	Chorus/Delay/Room: if program 14 isn't dramatic enough for you then this is definitely the one for you, as it adds Delay to the Chorus & Reverb mix!
16	Modulation: this effect is similar to the chorus effect but is less subtle and can be used to create rotary speaker-like effects.

23. DFX Mix Controls (Clean FX & Overdrive FX)

These determine the level of the internal effects selected by the pair of Program controls (25). The top DFX Mix control works on the two OD channels while the bottom one works on the Acoustic Simulator and Clean channels. In general you will find that the modulation effects (e.g. Chorus, Flange) require more level than the reverbs and delays. As always, let your ears decide what is right!

24. Adjust Controls (Clean FX & Overdrive FX)

For each of the 16 selectable DFX a particular parameter is adjustable. For example, when a Reverb is chosen, the decay (how long the reverb will be heard before it fades away) is adjustable via this control. The 'Program/Adjust' table (26) on the front panel of your amp lists what the Adjust control does for each of the 16 programs. As was the case with the DFX Mix controls, the top Adjust control works for the two OD channels and the bottom one for the Clean & Acoustic Simulator channels.

25. Program (Clean FX & Overdrive FX)

These select each one of the 16 on board digital effects - the top Program control works on the two OD channels and the bottom control works for the Clean and Acoustic Simulator Channels. The DFX available include single effects such as Reverb (9 types), Delay or Chorus and also multi-FX such as Chorus/Delay/Room. To add further to the flexibility of these two DFX sections, they can be switched on and off via the sturdy, LED foot-controller which comes supplied with each amp.

26. Digital FX Program/Adjust Table

This lists the 16 programs selectable via the Program control (25) and also indicates which parameter the Adjust control (24) modifies for each one. For added convenience, this table is shown below.

Digital FX Program | Adjust

1-3	Halls Decay Time
4-6	Rooms Decay Time
7-9	Plates Decay Time
10	Gated Reverb Decay Time
11	Chorus Rate
12	Flange Rate
13	Delay Time
14	Chorus Room Decay Time
15	Ch/Dly/Room Time
16	Modulation Speed

27. Power Switch

Wait for it...yes, this switches the amp on and off! When the amp is on the power switch is illuminated and vice-versa. Advanced power amplifier muting circuitry provides anti-thump protection on power up and down.

Important Note: As is the case with an all-valve amplifier, there will be no signal heard until the amp's ECC83 preamp valve warms-up and starts to pass signal. This can take up to 15 seconds so don't panic!

AVT150X & AVT150HX Rear Panel Features

1. Mains Input Connector

Your AVT is provided with a detachable mains (power) lead which is connected here. The specific mains input voltage rating that your amplifier has been built for is shown on the back panel. Before connecting for the first time, please ensure that your electricity supply is compatible with your amplifier. If you have any doubt, please seek advice from a qualified technician. Your Marshall dealer will help in this respect.

2. Loudspeaker Jack Sockets

a) AVT150X

There are two speaker jacksockets on the AVT150X. The one marked Internal (8 Ohm) is where the output of the AVT power amplifier is connected to its internal 8 Ohm Celestion loudspeaker. When an extension speaker is connected to the other output (marked Extension) the full power of the 150W power amplifier is unleashed. Please note that only an extension cabinet rated at 8 Ohms should be used. This will provide a parallel load with the Internal Speaker of 4 Ohms minimum.

b) AVT150HX

The AVT150HX has two loudspeaker outputs. The one marked 'Extension 8Ω' is for connection to a single 8 Ohm cabinet. The output marked 'Extension 8/4Ω' can either be used for connection to a second 8 Ohm speaker cabinet, or to drive a single 4 Ohm cabinet.

WARNING:

Always provide the AVT with a load equal to, or greater than, 4 Ohms.

Note: Two 8Ω cabinets connected in parallel = 4Ω

3. Footswitch

For connection of the supplied Stage Foot Controller (PEDL-10031). This sturdy 6-way Marshall footswitch allows instant selection of the 4 channels, plus the two DFX modes. It also features LEDs to indicate status.

4. Headphones

The headphones output is fully emulated using an improved version of the circuitry found on the industry standard JMP-1. Turning the Master Volume (20) to zero will provide silent practice.

5. Emulated Line Output

This jack socket carries a specially treated output signal from your AVT that accurately emulates the sonic signature of a Marshall 4x12 cabinet. This unerringly accurate emulation circuitry is Marshall's most advanced to date and was developed via countless hours of technical research, playing, listening and fine-tuning. This output can be used in both live performance and recording situations to achieve authentic guitar amp tones, without having to use a microphone. Turn down the Master Volume (20) for silent recording.

FX Loop

As already mentioned, the AVT150X and AVT150HX both boast a Mono Parallel FX loop for connection with external effects units. In addition to the FX Mix controls on the front panel (see 'Front Panel Features', point 22) this FX loop comprises of an FX Send jack, an FX Return jack and an FX level control button.

6. FX Return

For connection to the output of your external effects device.

7. FX Level

This should be set to match the level of the processor being used (generally -10dB for a stomp box, +4dB for a professional, rack unit).

8. FX Send

For connection to the input of the external device being used.

* FX Loop Hints:

- a) Always use high quality, shielded patch cables.
- b) If the processor being used has an input level control, ensure it is set correctly.
- c) Time based effects (delays & reverbs) and modulation effects (chorus, flange, phase, etc.) are ideal for use in a Parallel FX loop.
- d) Certain stomp box effects such as Wah, distortion, overdrive and fuzz were designed specifically for use in front of the amp and sound best when used that way. This said, tonal beauty is in the ears of the beholder so, if such a pedal sounds great to you when used in an FX loop then go for it! Sometimes, there are no rules...

AVT275X Rear Panel Features

1. Mains Input Connector

Your AVT is provided with a detachable mains (power) lead which is connected here. The specific mains input voltage rating that your amplifier has been built for is shown on the back panel. Before connecting for the first time, please ensure that your electricity supply is compatible with your amplifier. If you have any doubt, please seek advice from a qualified person. Your Marshall dealer will help in this respect.

2. Loudspeaker Jack Sockets

These connect the internal loudspeakers to the stereo power amplifier outputs.



WARNING:

Always provide both with a load equal to, or greater than 8 Ohms.

3. Footswitch

For connection of the supplied stage foot controller (PEDL-10031). This sturdy 6 way, Marshall footswitch allows instant selection of the 4 channels, plus the two DFX modes. It also features LEDs to indicate status.

4. Headphones

The headphones output is fully emulated using an improved version of the circuitry found on the industry standard JMP-1. Turning the Master Volume (20) to zero will provide silent practice.

5. Emulated Line Outputs (L, R)

This pair of stereo jack sockets carries a specially treated output signal from your AVT that accurately emulates the sonic signature of a Marshall stereo 4x12 cabinet. This unerringly accurate emulation circuitry is Marshall's most advanced to date and was developed via countless hours of technical research, playing, listening and fine-tuning. This output can be used in both live performance and recording situations to achieve authentic guitar amp tones, without having to use a microphone. Turn down the Master Volume (20) for silent recording.

FX Loop

As previously mentioned, the AVT275X boasts a Parallel FX loop for connection with external effects units. In addition to the FX Mix controls on the front panel (see 'Front Panel Features', point 22) this FX loop comprises of an FX Send jack, two FX Return jacks, Left & Right, and an FX level control button.

6. FX Return Left & Right

For connection with the stereo output of your external effects device - left goes to left and, wait for it, right goes to right.

Note: when using a mono output device use the Right (R) FX return as indicated.

7. FX Level

This should be set to match the level of the processor being used (-10dB for a stomp box, +4dB for a professional, rack unit).

8. FX Send

For connection with the input of the external device being used.

* FX Loop Hints:

- a) Always use high quality, shielded patch cables.
- b) If the processor being used has an input level control, ensure it is set correctly.
- c) Time based effects (delays & reverbs) and modulation effects (chorus, flange, phase, etc.) are ideal for use in a Parallel FX loop.
- d) Certain stomp box effects such as Wah, distortion, overdrive and fuzz were designed specifically for use in front of the amp and sound best when used that way. This said, tonal beauty is in the ears of the beholder so, if such a pedal sounds great to you when used in an FX loop then go for it! Sometimes, there are no rules...

**Follow all instructions and heed all warnings
KEEP THESE INSTRUCTIONS !**

Suggested Settings

On all the following suggested settings you will immediately notice how rich and authentic the sounds are. As you will hear, even on clean settings Advanced Valvestate Technology adds those subtle harmonics and that desirable compression which only a classic all-valve amp can normally deliver.

Bright Piezo Acoustic

'Bright Piezo Acoustic' closely simulates the sound of a piezo equipped semi-acoustic. This setting works best with the neck pickup. Adding some Chorus/Room effect (Program 14) will give a 12 string sound for folky strumming.

Mellow Jumbo

Engaging the Body Switch (4) and decreasing the Top control (3) will give a really full 'Jumbo Acoustic' type sound. Add some Hall Reverb (Program 2) for atmospheric acoustic lead work.

Funky Clean

A really bright clean which still maintains mid definition. This is best used in conjunction with a single-coil neck pick-up or the neck/bridge combination on a humbucker equipped guitar. Keeping the Gain control low ensures a clean preamp signal and also helps feed extra treble through to the power amplifier for additional brightness and cut.

Blues Clean

Here the preamp Gain is increased and what you start to hear is pure, harmonically rich break-up and compression from the internal Marshall ECC83 preamp valve. Again the neck pick-up on a single coil guitar or the neck/ bridge combination on a humbucker-loaded guitar will deliver the warmest tones.

Jazz Clean

A warm rounded clean ideal for 'comping' and walking bass progressions.

Brit Crunch

Here the advantage of the separate Gain and Volume controls really comes into play. Notice how the Gain is quite low but the Volume is quite high. This is the way the old Marshall crunch sounds of the late 60's and 70's were created - namely by keeping the preamp pretty clean and creating the desired distortion by driving the power stage hard. With such a setting, when you back off the guitar's volume or pick lighter, you will feel and hear how the rich, clear tone of the clean sound remains.

Funky Overdrive

For those who wish to get lost in a purple haze, back off OD1's Gain to give extra definition and dynamics.

MV Crunch

This crunch is reminiscent of the first Marshall Master Volume amplifiers of the much heralded JCM800 series. The Valve Drive Preamp is driven into mild saturation, creating a big, open overdrive using the bridge position pick-up, whether single-coil or humbucker.

Screaming Lead

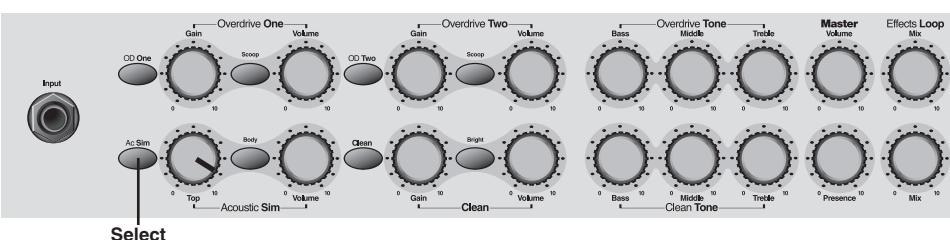
Here the Gain is cranked to the max and the mids are brought up to fatten the tone of the single notes. With these settings the rich, natural harmonic overtones that the valve introduces will be very apparent. Best with the bridge pickup.

Heavy, Modern Crunch

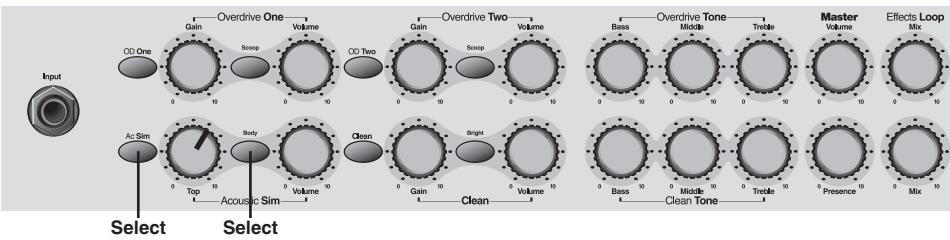
Cutting the Mids while heavily boosting the Gain, Treble and Bass gives an aggressive, modern 'tear-y-face-off', scooped sound. The bridge humbucker is the one to use here if you truly wanna ride the lightning...definitely not for the faint-hearted!

AVT150X / AVT150HX & AVT275X Suggested Settings

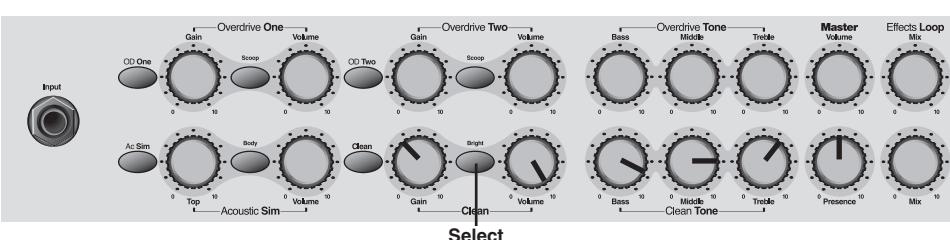
Bright Piezo Acoustic



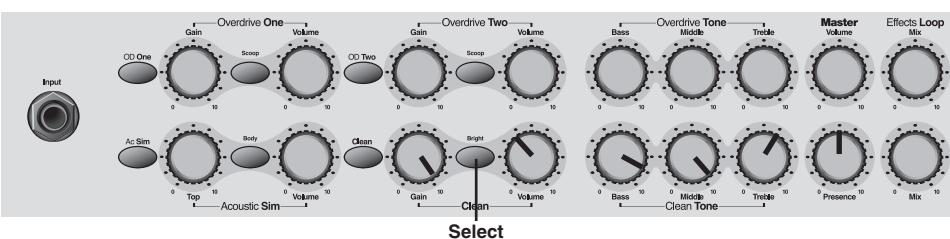
Mellow Jumbo



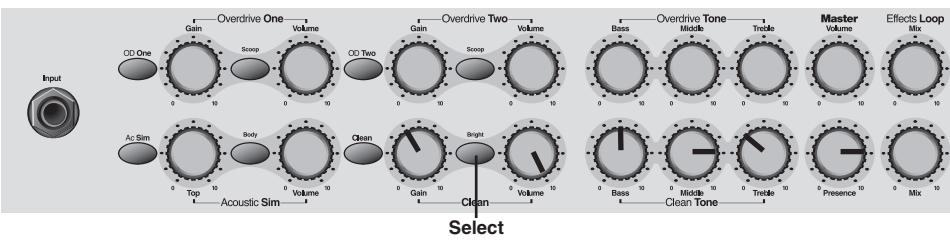
Funky Clean



Blues Clean



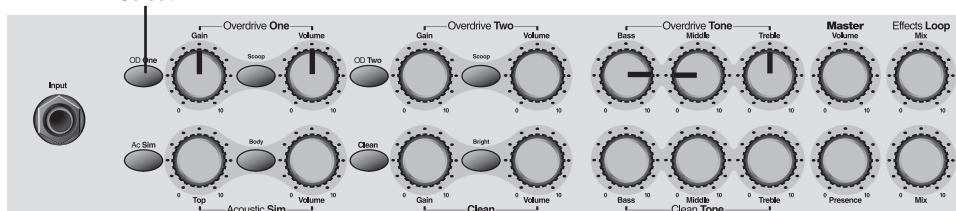
Jazz Clean



AVT150X / AVT150HX & AVT275X Suggested Settings

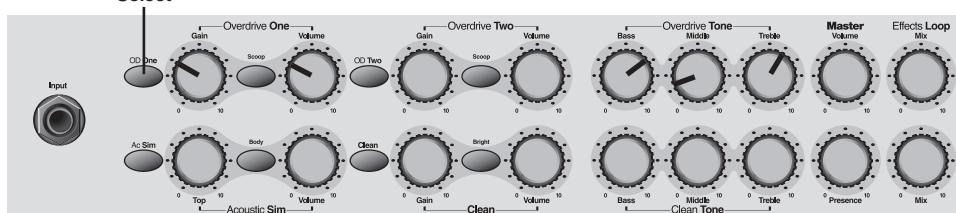
ENGLISH

Select



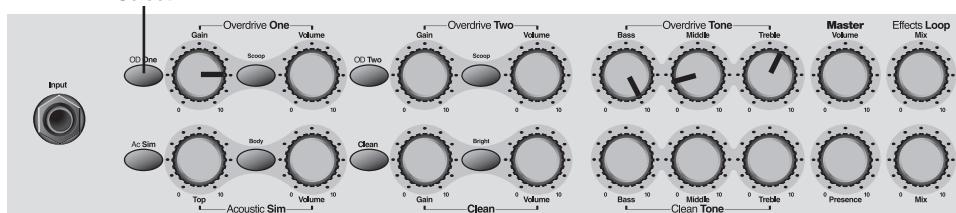
Brit Crunch

Select



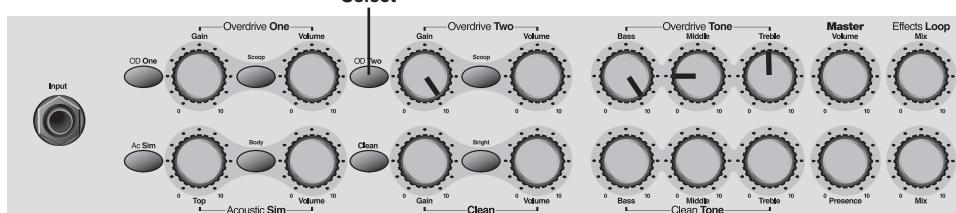
Funky Overdrive

Select



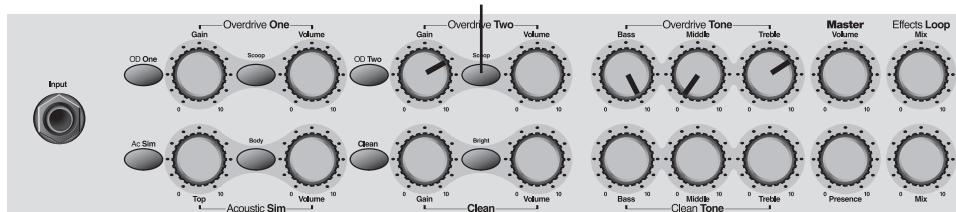
MV Crunch

Select



Screaming Lead

Select



Heavy Modern
Crunch

AVT150X & AVT150XH AVT275X

Power Output	150W RMS into 4Ω	2 x 75W RMS into 8Ω	
Potencia de salida	150W RMS sobre 4Ω	2 x 75W RMS sobre 8Ω	
Ausgangsleistung	150W RMS an 4Ω	2 x 75W RMS an 8Ω	
Puissance de sortie	150W RMS sous 4 ohms	2 x 75W RMS sous 8 ohms	
パワー出力	150W RMS / 4 Ω 接続	2 x 75W RMS / 8 Ω 接続	
Main Guitar • Input Impedance	1MΩ	1MΩ	
Impedancia de entrada principal de guitarra	1MΩ	1MΩ	
Guitar Input • Eingangsimpedanz	1MΩ	1MΩ	
Impédance d'entrée	1MΩ	1MΩ	
メインギター 入カインピーダンス	1MΩ	1MΩ	
Emulated Output • Level	-10dBV * see note 1	-10dBV * see note 1	
Nivel de salida de línea simulada	-10dBV * ver nota 1	-10dBV * ver nota 1	
Emulated Output • Ausgangspegel	-10dBV * siehe Hinweis 1	-10dBV * siehe Hinweis 1	
Niveau de sortie	-10dBV voir note 1	-10dBV voir note 1	
エミュレート出力 レベル	-10dBV * 注 1 参照	-10dBV * 注 1 参照	
FX Send • Level Switchable	-10dBV, +4dBV * see note 2	-10dBV, +4dBV * see note 2	
Envío de efectos • Nivel Commutable	-10dBV, +4dBu * ver nota 2	-10dBV, +4dBu * ver nota 2	
FX Send • Ausgangspegel (schaltbar)	-10dBV, +4dBV * siehe Hinweis 2	-10dBV, +4dBV * siehe Hinweis 2	
Niveau de sortie d'effet • Commutable	10dBV, +4dBV * voir note 2	10dBV, +4dBV * voir note 2	
エフェクト センド・レベル切り替え	10dBV, +4dBV * 注 2 参照	10dBV, +4dBV * 注 2 参照	
Weight	28kg	16kg	
Peso	28kg	16kg	
Gewicht	28kg	16kg	
Poids	28kg	16kg	
重量	28kg	16kg	
Size (mm)	607 x 550 x 290	680 x 310 x 260	680 x 550 x 290
Tamaño (mm)	607 x 550 x 290	680 x 310 x 260	680 x 550 x 290
Maße (mm)	607 x 550 x 290	680 x 310 x 260	680 x 550 x 290
Taille (mm)	607 x 550 x 290	680 x 310 x 260	680 x 550 x 290
サイズ	607 x 550 x 290	680 x 310 x 260	680 x 550 x 290
Internal Speaker • Custom Celestion	100W/12" 8Ω	N/A	2 x 100W/12" 8Ω
Altavoz interno • Celestion custom	100W/12" 8Ω	—	2 x 100W/12" 8Ω
Interner • Custom Celestion Lautsprecher	100W/12" 8Ω	—	2 x 100W/12" 8Ω
Haut-parleur interne (custom Celestion)	100W/12" 8Ω	—	2 x 100W/12" 8Ω
内蔵スピーカー カスタムCelestion	100W/12" 8Ω	なし	2 x 100W/12" 8Ω
Valve	1 x ECC83 (Dual Triode)	1 x ECC83 (Dual Triode)	1 x ECC83 (Dual Triode)
Válvula	1 x ECC83 (Triodo doble)	1 x ECC83 (Dual Triode)	1 x ECC83 (Dual Triode)
Röhre	1 x ECC83 (Dual Triode)	1 x ECC83 (double triode)	1 x ECC83 (double triode)
Lampe	1 x ECC83(デュアル・トライオード)	1 x ECC83(デュアル・トライオード)	1 x ECC83(デュアル・トライオード)

* Note 1: Recommended for connection to inputs with input impedance >20KΩ

* Nota 1: Se recomienda conectar a entradas con impedancia superior a 20KΩ

* Hinweis 1: Empfohlen für die Benutzung mit Equipment auf Linepegel (z.B. Studioeffektgeräte etc.)

* Note 1: Recommandée pour une impédance d'entrée supérieure à 20KΩ

* 注 1 接続する入力の推奨インピーダンス >20kΩ

* Note 2: Recommended for use with line level equipment (i.e. rack processors etc.)

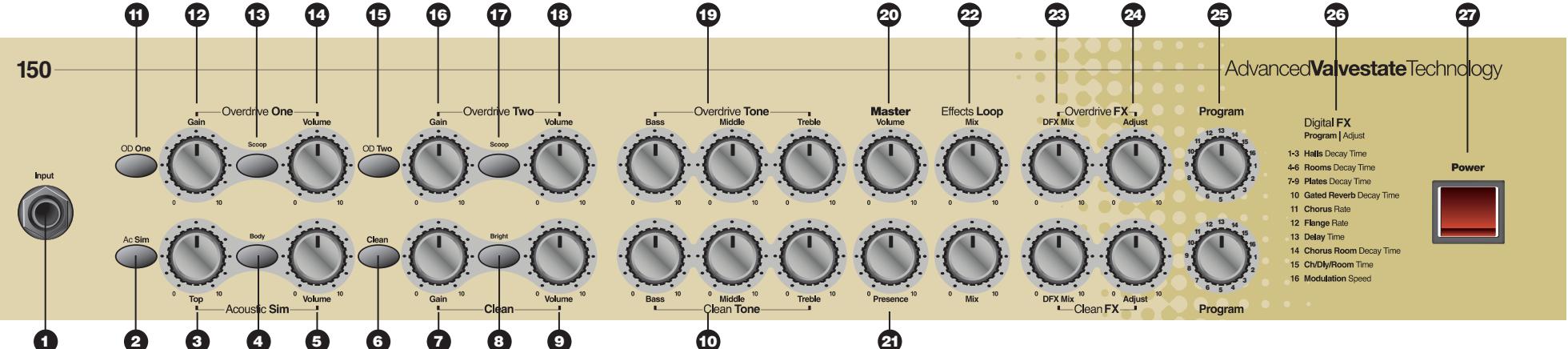
* Nota 2: Se recomienda utilizar con equipo con nivel nominal de línea (como procesadores de rack, etc...)

* Hinweis 2: Empfohlen für die Benutzung mit Equipment auf Linepegel (z.B. Studioeffektgeräte etc.)

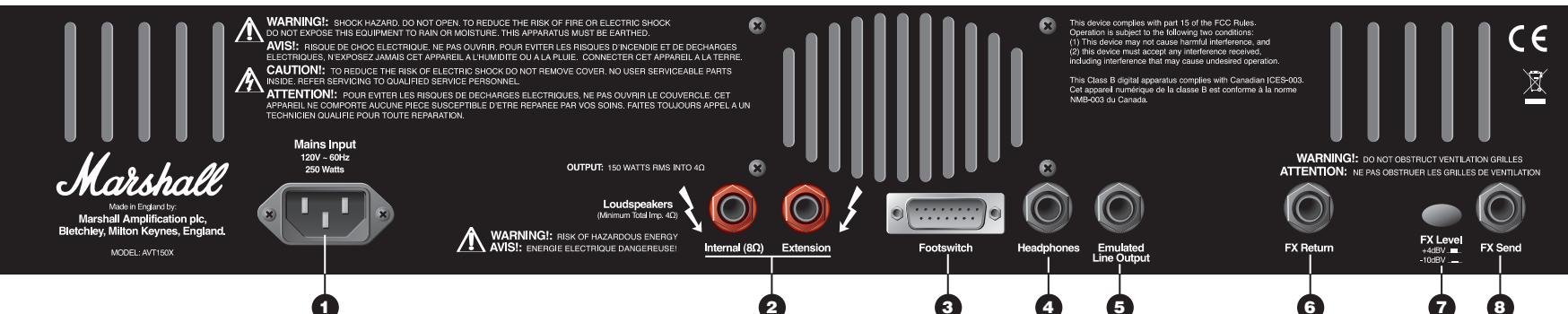
* Note 2: Recommandée pour des niveaux de ligne de type processeur d'effets en rack.

* 注 2 接続機器（ラックプロセッサーなど）の推奨 フィンレベル

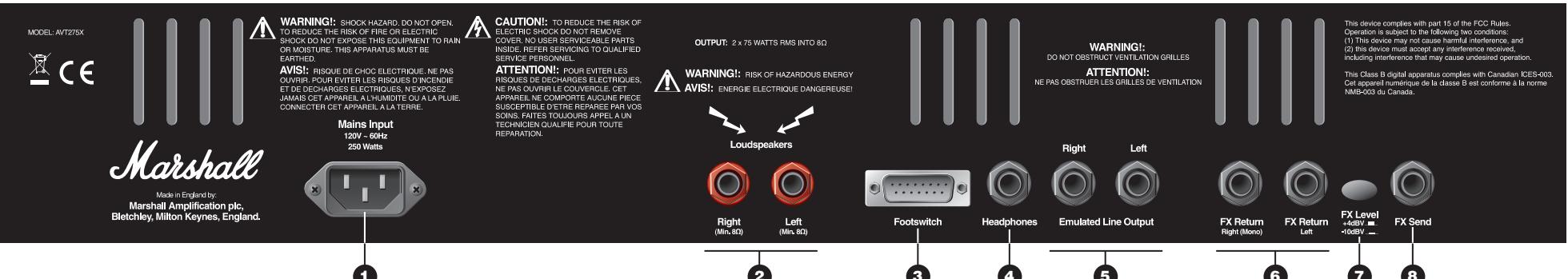
AVT150X Combo, AVT150XH Head & AVT275X Stereo Front Panel Features



AVT150X Combo, AVT150HX Head Rear Panel Features



AVT275X Stereo Rear Panel Features



English

* **EUROPE ONLY**  - **Note:** This equipment has been tested and found to comply with the requirements of the EMC directive (Environments E1, E2 and E3 EN 55103-1/2) and the Low Voltage directive in the E.U.

* **EUROPE ONLY - Note:** The Peak Inrush current for the AVT150X, AVT150HX & AVT275X is 32 amps.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Reorient or relocate the receiving antenna.
- ◆ Increase the separation between the equipment and the receiver.
- ◆ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ◆ Consult the dealer or an experienced radio/TV technician for help.

Español

* **SÓLO PARA EUROPA**  - **Nota:** Este equipo ha sido examinado y se ha comprobado que cumple la normativa EMC (Apartados E1, E2 y E3 EN 55103-1/2) y la normativa de Baja Tensión de la U.E.

* **SÓLO PARA EUROPA - Nota:** La corriente de pico en el encendido del AVT150X, AVT150HX & AVT275X es de 32 amperios.

Nota: Este equipo ha sido examinado y calificado como aparato digital de Clase B, de acuerdo con la parte 15 de la normativa FCC. Esta calificación fue definida para garantizar una protección razonable contra interferencias en una instalación doméstica. Este equipo genera, utiliza y puede radiar energía de radiofrecuencia y, si no se instala y utiliza de acuerdo con las instrucciones, puede producir interferencias indeseadas a las radiotransmisiones. De todas formas, no hay una garantía total de que no ocurran interferencias en ciertas instalaciones. Si este equipo produce interferencias perjudiciales a la recepción en aparatos de radio o televisión, lo cual se puede deducir observando el efecto al encender y apagar el equipo, se sugiere al usuario que intente corregir estas interferencias siguiendo una o varias de las siguientes medidas:

- ◆ Reorientar o reubicar la antena receptora de la radio o televisión.
- ◆ Aumentar la separación entre el equipo y el aparato receptor.
- ◆ Conectar el equipo en un enchufe de un circuito de alimentación distinto de aquel al que va conectado el receptor.
- ◆ Consultar con el vendedor o con un técnico experto en radio y TV.

Deutsch

* **GILT NUR FÜR EUROPA**  - **Hinweis:** Dieses Gerät entspricht den Anforderungen der EMC Richtlinien (Anlagen E1, E2 und E3 EN 55103-1/2) und den Anweisungen für Niederspannung der E.U und wurde entsprechend getestet.

* **GILT NUR FÜR EUROPA - Hinweis:** Die Stromspitze beim Einschalten liegt beim AVT150X, AVT150HX & AVT275X bei 32 Ampere.

Die entsprechenden Grenzwerte stellen einen ausreichenden Schutz vor störenden Interferenzen beim Gebrauch im Wohnbereich sicher. Dieses Gerät generiert und arbeitet im Radiofrequenzbereich und kann eine entsprechende Strahlung aussenden. Wird das Gerät nicht entsprechend den Bedienungsanweisungen benutzt, so kann es zu Störungen beim Empfang von Radio- oder TV-Signalen kommen. Es ist grundsätzlich nicht auszuschließen, daß es bei einigen Anwendungen zu derartigen Störungen kommen kann. Sollte dies einmal der Fall sein (zur Überprüfung sollte das Gerät an- und ausgeschaltet werden) so schlagen wir die folgenden Lösungsansätze vor:

- ◆ Positioniere die Empfangsantenne anders.
- ◆ Vergrößere den Abstand zwischen dem Verstärker und dem Empfangsgerät.
- ◆ Benutze einen anderen Netzanschluß für beide Geräte.
- ◆ Konsultiere einen Händler oder geschulten Radio-Fernsehtechniker.

Français

* **EUROPE UNIQUEMENT**  - **Remarque:** Ce matériel a été testé: il est conforme aux directives européennes EMC (Environnement E1, E2 et E3 EN 55103-1/2) et aux directives sur les appareils basse tension.

* **EUROPE UNIQUEMENT - Remarque:** La consommation en crête du AVT150X, AVT150HX & AVT275X est de 32 ampères.

Note: Cet équipement a été testé et approuvé conforme aux normes fédérales sur les appareils numériques de Classe B selon le résolution fédérale américaine. Ces limites sont désignées pour fournir une protection raisonnable contre les interférence en installation résidentielle. Cet appareil génère, utilise et peut émettre des fréquences radio et, en cas d'installation ou d'utilisation différente de ce qui est préconisé dans ce mode d'emploi, il peut entraver la bonne réception des équipements de télévision ou radio avoisinants. Cependant, nous ne pouvons garantir l'absence d'interférences selon l'application utilisée. Si cet appareil est source d'interférence (vérifiez en plaçant l'appareil sous ou hors tension à plusieurs reprises), nous vous encourageons à appliquer l'une des mesures suivantes:

- ◆ Réorientez ou déplacez l'antenne de réception.
- ◆ Augmentez la distance entre l'appareil et le récepteur.
- ◆ Connectez le matériel sur une ligne secteur différente de celle du récepteur.
- ◆ Consultez votre revendeur ou un spécialiste TV/Radio.